

unless the observer can or will give the time to notice them properly.

4. The direction of propagation of these storms seems, as nearly as possible, to be about E.S.E. From numbers of opportunities I have had of observing them while the ship was going on this course, the storms follow one another much more regularly, and follow out all the necessary conditions of the diagram, while in steering either more to the northward or southward the conditions are altered, but still agree with the translation of the storm along this particular point. But until a number of really good synchronous observations are to be obtained, this will always be more or less doubtful. I have every reason for knowing that ships' logs are not as accurate as to winds' direction and the weather as they might be; different people writing up the same log alone causing considerable errors, more especially in the velocity of the wind, which is generally considerably overrated. The subject has lately been taken in hand here, and we may hope soon to have some valuable information, only here again land influences tend considerably to alter these storms, and will not tend to throw very much light on their true formation over the sea.

ART. XI.—*Propulsion of Steam Vessels without
Machinery.*

BY CAPTAIN GRIFFITHS.

[Read by MR. KERNOT, 13th July, 1882.]